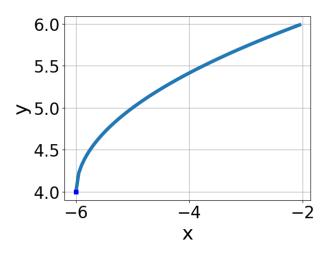
Progress Quiz 3

1. Choose the equation of the function graphed below.



A.
$$f(x) = \sqrt{x+6} + 4$$

B.
$$f(x) = -\sqrt{x-6} + 4$$

C.
$$f(x) = -\sqrt{x+6} + 4$$

D.
$$f(x) = \sqrt{x-6} + 4$$

- E. None of the above
- 2. What is the domain of the function below?

$$f(x) = \sqrt[7]{-4x + 9}$$

- A. The domain is $(-\infty, a]$, where $a \in [1.3, 3.6]$
- B. The domain is $(-\infty, a]$, where $a \in [0, 1.7]$
- C. The domain is $[a, \infty)$, where $a \in [-0.6, 1.3]$
- D. The domain is $[a, \infty)$, where $a \in [2.2, 2.4]$
- E. $(-\infty, \infty)$
- 3. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

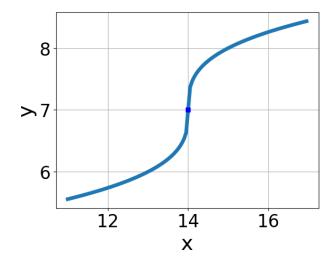
$$\sqrt{-3x+9} - \sqrt{4x-7} = 0$$

Progress Quiz 3

- A. $x_1 \in [1.78, 3.14]$ and $x_2 \in [0, 10]$
- B. All solutions lead to invalid or complex values in the equation.
- C. $x \in [-0.11, 0.57]$
- D. $x \in [1.78, 3.14]$
- E. $x_1 \in [0.34, 2.25]$ and $x_2 \in [0, 10]$
- 4. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-5x+9} - \sqrt{5x-9} = 0$$

- A. All solutions lead to invalid or complex values in the equation.
- B. $x \in [1, 4]$
- C. $x \in [-0.9, 1.1]$
- D. $x_1 \in [1, 4]$ and $x_2 \in [-2.2, 4.8]$
- E. $x_1 \in [1, 4]$ and $x_2 \in [-2.2, 4.8]$
- 5. Choose the equation of the function graphed below.



- A. $f(x) = -\sqrt{x 14} + 7$
- B. $f(x) = \sqrt{x 14} + 7$

C.
$$f(x) = -\sqrt{x+14} + 7$$

D.
$$f(x) = \sqrt{x+14} + 7$$

E. None of the above

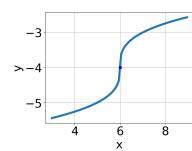
6. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

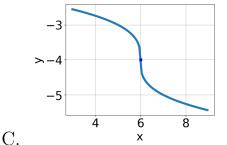
$$\sqrt{45x^2 + 42} - \sqrt{-89x} = 0$$

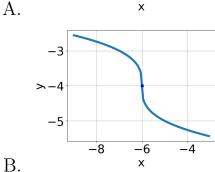
A.
$$x \in [-0.91, -0.66]$$

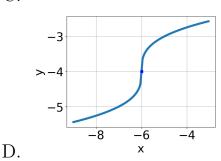
- B. All solutions lead to invalid or complex values in the equation.
- C. $x_1 \in [-1.81, -0.85]$ and $x_2 \in [-0.78, 0.22]$
- D. $x_1 \in [-0.13, 2.15]$ and $x_2 \in [0.2, 4.2]$
- E. $x \in [-1.81, -0.85]$
- 7. Choose the graph of the equation below.

$$f(x) = -\sqrt[3]{x - 6} - 4$$









E. None of the above.

8. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

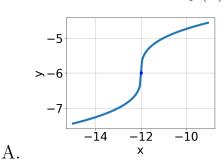
$$\sqrt{-36x^2 - 56} - \sqrt{-95x} = 0$$

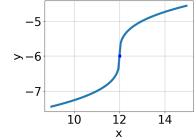
- A. $x_1 \in [0.79, 1.17]$ and $x_2 \in [1.75, 2.75]$
- B. $x_1 \in [-1.03, -0.47]$ and $x_2 \in [-4.75, 0.25]$
- C. All solutions lead to invalid or complex values in the equation.
- D. $x \in [1.45, 2.74]$
- E. $x \in [0.79, 1.17]$
- 9. Choose the graph of the equation below.

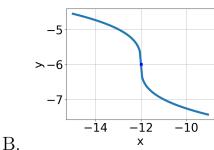
$$f(x) = -\sqrt[3]{x+12} - 6$$

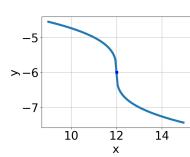
C.

D.









- E. None of the above.
- 10. What is the domain of the function below?

$$f(x) = \sqrt[4]{8x - 3}$$

- A. $(-\infty, a]$, where $a \in [1.67, 6.67]$
- B. $[a, \infty)$, where $a \in [-2.62, 2.38]$
- C. $[a, \infty)$, where $a \in [1.67, 4.67]$
- D. $(-\infty, \infty)$
- E. $(-\infty, a]$, where $a \in [-0.62, 2.38]$

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